

Capron 5202 HS BK-102

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Attachment 4

Honeywell

Capron[®] 5202 HS BK-102

Capron 5202 HS BK-102 is an unfilled, heat stabilized, pigmented black nylon 6.6, injection molding compound. It combines strength and stiffness as well as excellent chemical resistance. The addition of heat stabilizer system extends its retention of properties at elevated temperatures.

TYPICAL PROPERTIES

Print Version

| | DATA | 50°C (122°F) | ISO Test |
|-------------------------------------|-------|--------------|----------|
| PHYSICAL | | | |
| ⇒ Density, g/cm ³ | 1.14 | - | 1183 |
| Moisture, % | - | - | 62 |
| 2.5 (50% RH) | - | - | - |
| 8.5 (Saturation) | - | - | - |
| MECHANICAL | | | |
| ⇒ Tensile Modulus, MPa | - | - | 527 |
| 23°C | 3,500 | - | - |
| Tensile stress at yield, MPa | - | - | 527 |
| 23°C | 95 | - | - |
| Tensile strain at yield, % | - | - | 527 |
| 23°C | 3 | - | - |
| ⇒ Nominal strain at break, % | - | - | 527 |
| 23°C | 15 | - | - |
| Flexural Strength, MPa | - | - | 178 |
| 23°C | 100 | - | - |
| Flexural Modulus, MPa | - | - | 178 |
| 23°C | 2,950 | - | - |
| IMPACT | | | |
| Charpy Notched, kJ/m ² | - | - | 178 |
| 23°C | 4 | - | - |
| Charpy Unnotched, kJ/m ² | - | - | 178 |
| 23°C | 62 | - | - |
| THERMAL | | | |
| Melting Point, °C | 280 | - | 3148 |
| HDT A, °C | 80 | - | 75 |
| UL RATINGS | | | |
| Flammability Rating, 1.5mm | V-2 | - | UL94 |
| Relative Temperature Index, 1.6mm | - | - | UL746B |
| Mechanical w/o impact, °C | 65 | - | - |
| Mechanical w/ impact, °C | 65 | - | - |
| Electrical, °C | 65 | - | - |

APPLICATIONS

Capron 5202 HS Bk-102 is generally recommended for applications requiring slightly higher temperature and stiffness, such as engine component, power tools guides, straps and other hardware.

PROCESSING GUIDELINES

Material Handling

Max. Water content: 0.25%

Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80 °C is recommended. Drying time is dependent on moisture level. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your Honeywell representative.

Typical Profile

Melt Temperature 280-305 °C

Mold Temperature 80-95 °C

Injection and Packing Pressure 35-175 bar